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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/542,949	07/21/2005	Toshiya Kudo	08295.0003-00000	9152

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EXAMINER

VERLEY, NICOLE T

ART UNIT	PAPER NUMBER
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4114

MAIL DATE	DELIVERY MODE
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10/31/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/542,949

Applicant(s)

KUDO ET AL.

Examiner

Nicole Verley

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 July 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 1/12/2006.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

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DETAILED ACTION

1. In response to the Preliminary Amendment filed on January 12, 2006, claims 1-18 are pending.

Priority

2. The first sentence of the specification must state any priority being claimed from a National Stage Application under 35 USC 371, previous domestic or foreign applications.

Information Disclosure Statement

3. The information disclosure statement (IDS) filed July 21, 2005 fails to comply with 37 CFR 1.98(a)(1), which requires the following: (1) a list of all patents, publications, applications, or other information submitted for consideration by the Office; (2) U.S. patents and U.S. patent application publications listed in a section separately from citations of other documents; (3) the application number of the application in which the information disclosure statement is being submitted on each page of the list; (4) a column that provides a blank space next to each document to be considered, for the examiner's initials; and (5) a heading that clearly indicates that the list is an information disclosure statement. Specifically, the IDS filed July 21, 2005 does not list the following documents filed on July 21, 2005: Sasaki, JP 2002-2000950 A2; Brambilla, JP 2001-239922; Omura, JP 06-286581 A2; Fujii, JP 2001-151076 A2; Mishina, JP 2000-118352

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A2; Kore, JP 11-334503 A2 on a PTO-1449 form, accordingly these references have not been considered although they have been submitted.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 2, 7, 9, and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Omura (US Patent Number 5,552,986).

Regarding claim 1, Figure 1A of Omura discloses means for predicting a collision with an object of collision (13), first winding control means (PT1) for controlling the winder so as to wind the seatbelt at a first winding load (F1) when a collision is predicted by the collision predicting means (Column 4, lines 28 – 35, 45-48), means for detecting an emergency braking state (17), second winding control means (PT2) for controlling the winder so as to wind the seatbelt at a second winding load (F2) which is larger than the first winding load (F1) when the emergency braking state is detected by the emergency brake detecting means (Column 4, lines 52 – 60).

Regarding claims 2 and 9, Figure 1A and 15, of Omura discloses means for predicting a collision with an object of collision (13); first winding control means (PT1) for controlling the winder (regarding claim 9) or adapted (regarding claim 2) to wind the seatbelt from a moment when the collision is predicted by the collision predicting means

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(13) while increasing the first (regarding claim 2) winding load (F1) of the seatbelt at a first rising gradient (Figure 15); emergency brake detecting means (17) for detecting an emergency braking state (Figure 15); and second winding control means (PT2) for controlling the winder or adapted (regarding claim 2) to wind the seatbelt while increasing the second (regarding claim 2) winding load of the seatbelt at a second rising gradient which is larger than the first rising gradient from a moment when the emergency braking state is detected by the emergency brake detecting means (Figure 15) (Column 4, lines 28 – 35, 45 - 48, 52 – 60, Column 14, lines 25 - 37).

Regarding claims 7 and 12, Figure 1B of Omura discloses collision predicting means (12) continuously detects a length (Lc) from the vehicle in question (M2) to the object of collision (M1), and predicts the collision with the object of collision based on the detected length (Lc) which varies with time (Column 5, lines 9 – 16, 65 – 67, Column 6, lines 1 – 2).

6. Claim 14 is rejected under 35 U.S.C. 102(b) as being anticipated by Mishina (Japanese Patent No. 2000-118352).

Mishina discloses in paragraph 15 and 21, collision predicting means (precognition sensor, paragraph 21) winding control means (puritenshon) for controlling the winder to wind the seatbelt at a predetermined winding load between 80N and 120N (10 – 50kgf) when the collision is predicted by the collision predicting means (paragraph 15).

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7. Claim 17 is rejected under 35 U.S.C. 102(b) as being anticipated by Klingauf (US Patent Number 6,969,089).

Klingauf discloses Figure 13 collision predicting means (crash sensor), and winding control means (belt tensioner) to wind the seatbelt (Column 1, lines 23 – 25) while increasing the winding load of the seatbelt from a moment when the collision is predicted by the collision predicting means (Column 4, lines 20 – 24) at a predetermined rising gradient equal to or larger than 100N/180ms and smaller than 100N/100ms (Figure 13).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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9. Claims 3, 4, 10, and 11 rejected under 35 U.S.C. 103(a) as being unpatentable over Omura as applied to claims 1, 2, and 9 above, and further in view of Klingauf (US Patent Number 6,969,089).

Regarding to claims 3 and 4, Figure 15 of Omura teaches first rising gradient (regarding claim 4) and second rising gradient (regarding claim 3) (Column 14, lines 25 – 37). However Omura does not explicitly disclose gradient values. Klingauf teaches that it is known to use various gradient values of force over time as set forth in Figure 13. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a value equal to or larger than 100N/180ms and smaller than 100N/100ms (regarding claim 4 and 11) and a value equal to or larger than 100N/100ms (regarding claim 3 and 10), since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or working ranges involves only routine skill in the art.

10. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mishina as applied to claim 14 above, and further in view of Klingauf (US Patent Number 6,969,089).

Mishina discloses winding control means (Puritenshon) adapted to increase the winding load of the seatbelt as described above. Mishina does not disclose gradient values in increasing tension when applying Puritenshon. However, Klingauf teaches that it is known to use various gradient values of force over time as set forth in Figure 13. Mishina and Klingauf are analogous art because they are from the same field of

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endeavor for seatbelt apparatus with a winder. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a value equal to or larger than 100N/180ms and smaller than 100N/100ms and a value equal to or larger than 100N/100ms, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or working ranges involves only routine skill in the art.

11. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Omura as applied to claim 1 above, and further in view of Brambilla (US Publication Number 2001/0054816).

Omura teaches the first winding load (F2) (regarding claim 6) and the second winding load (F3) (regarding claim 5). It is noted that Omura does not disclose force values for F2 and F3. However, Brambilla discloses a first winding load (holding force) to a value between 80N and 120 N (claim 2) (regarding claim 6), a second winding load (pullback force) to a value equal to or larger than 150N (claim 2) (regarding claim 5). Omura and Brambilla are analogous art because they are from the same field of endeavor for seatbelt apparatus with a winder. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a value between 80N and 120 N, as well as a value equal to or larger than 150N, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or working ranges involves only routine skill in the art.

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12. Claims 8 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Omura as applied to claims 1 and 9 above, and further in view of Mizutani (US Publication Number 2004/0122573).

Omura teaches emergency brake detecting means (16 and 17). It is noted that Omura does not disclose how the emergency brake detecting means detects the emergency braking state. However Mizutani discloses the emergency brake detecting means (100) detects the emergency braking state based on at least any one of a pressing amount, a pressing speed, and pressing force of the brake pedal and a brake hydraulic pressure (page 3, paragraph 36). Omura and Mizutani are analogous art because they are from the same field of endeavor for seatbelt apparatus with a winder. At the time of invention, it would have been obvious to a person of ordinary skill in the art to use the Mizutani emergency braking detecting criteria for the Omura emergency brake detecting means. The motivation would have been to have a vehicle safety apparatus which prevents the actuation of the safety apparatus from being excessive in the case where an increase of the amount of brake operation is low. Furthermore, in the case of the increase being high, the actuation is controlled so as to fully bring out the performance of the safety apparatus (abstract).

13. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mishina as applied to claim 14 above, and further in view of Omura (US Patent Number 5,552,986).

Mishina discloses collision predicting means (precognition sensor, paragraph 21). It is noted that Mishina does not disclose how the collision is predicted. However, Omura discloses collision predicting means (12) continuously detects a length (Lc) from the vehicle in question (M2) to the object of collision (M1), and predicts the collision with the object of collision based on the detected length (Lc) which varies with time (Column 5, lines 9 – 16, 65 – 67, Column 6, lines 1 – 2). It would have been obvious to a person of ordinary skill in the art to use the Omura operation for the Mishina collision predicting means. The motivation would have been a determination is made as to whether or not a vehicle collision is detected in spite of the driver's operation for avoiding the vehicle collision (Column 6, lines 36 – 38).

14. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Klingauf as applied to claim 17 above, and further in view of Omura (US Patent Number 5,552,986).

Klingauf discloses a means for predicting a collision (crash sensor, Column 1 lines 17 - 21). It is noted that Klingauf does not disclose how the collision is predicted. However, Omura discloses collision predicting means (12) continuously detects a length (Lc) from the vehicle in question (M2) to the object of collision (M1), and predicts the collision with the object of collision based on the detected length (Lc) which varies with time (Column 5, lines 9 – 16, 65 – 67, Column 6, lines 1 – 2). It would have been obvious to a person of ordinary skill in the art to use the Omura operation for the Klingauf collision predicting means. The motivation would have been a determination

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is made as to whether or not a vehicle collision is detected in spite of the driver's operation for avoiding the vehicle collision (Column 6, lines 36 – 38).

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Gerhaer (US Patent Number 5,594,416), Katoh (US Patent Number 5,748,477), Viano (US Publication Number 2003/0178836).

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nicole Verley whose telephone number is (571) 270-3542. The examiner can normally be reached on 8:00 AM - 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joe Cheng can be reached on (571) 272-4433. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NV



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